The Grundfos HS Horizontal Split Case is the giant in the Grundfos product range. It combines double suction ports with high flow and in-line pipe connection.

The HS Horizontal Split Case virtually eliminates radial loads by hydraulically balancing the liquid within its casing and it offers benefits like improved efficiency, minimised vibration, extended seal and bearing life and low noise levels.

Grundfos application areas:
- Industrial plants
- Public water supply
- District cooling / heating plants
- Air-con / heating systems
- Fire protection
- Cooling systems
- Irrigation
The HS Horisontal Split Case is the giant in the Grundfos product range. It combines double volute design with high flow and in-line pipe connection. The pump covers a wide range of application areas and continuously provides efficient and reliable performance due to its robust design.

**Areas of application**
- Industrial plants
- Public water supply
- District cooling/heating plants
- Air-con/heating systems
- Fire protection
- Cooling systems
- Irrigation

**Technical data:**
- Flow up to 2500 m³/h
- Head up to 150 m
- Liquid temperatures from 0°C to +100°C
- Operating pressure up to 16 bar
  * Up to 100°C with BBVP seal
  * Up to 135°C with FPV seal

**Performance area for the HS Horisontal Split Case**

![Image of performance area graph]

The curve shows the performance of Grundfos HS Horisontal Split Case pumps.

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**Perfect Balance**

The split case is characterised by its ability to virtually eliminate radial loads by hydraulically balancing the liquid within the casing. This balancing ability is made possible by the unique double volute construction, which provides two individual volute passageways to guide the flow out of the impeller and into the discharge. Moreover, the split case provides the double suction impeller, which extends the life of the pump by neutralising the axial forces. The double volute and double suction construction has a number of great benefits:

- Improved efficiency
- Minimised vibration
- Extended seal and bearing life
- Quiet operation

**One man maintenance**

The split case pump features an exceptional bearing house/seal chamber construction, which makes it unnecessary to remove the top casing half in order to maintain the pump. That means that one person can easily access the bearing house and inspect seals, sleeves and bearings without the strain of heavy lifting. Consequently, the HS Horisontal Split Case guarantees a minimum of downtime because of the simplicity of its maintenance.

**Broad band high efficiency**

The impeller design of the split case has been specifically matched to the casing of the pump in order to provide broad band high efficiency. As a result, the operating costs of the horizontal split case are reduced dramatically giving it a valuable low life cycle cost.
**Flexible grid coupling**
The flexible grid coupling is called the Rolls-Royce of couplings because it is able to compensate for misalignments to a certain degree. The flexible grid coupling comes as a standard feature in the HS Horizontal Split Case.

**Renewable neck rings**
All HS Horizontal Split Case pumps are equipped with renewable neck rings as a standard feature, which means that there is only wear on the bronze neck ring in the area between impeller and pump casing. This way the renewable neck rings help protect the costly casing.

**Double suction impeller**
The definition of split case pumps includes double suction impellers. By directing flow into both sides of the impeller, axial forces are neutralised.

**Double volute design**
The double volute eliminates radial loads by balancing pressure within the casing. Three major advantages are improved efficiency, minimised vibration and extended seal and bearing life.

**Easy replacement**
The bearings and shaft seals can be replaced without removing the upper casing, which makes maintenance simple and reduces downtime.

**Clockwise or counter-clockwise operation**
All HS Horizontal pumps are selected with either clockwise or counter-clockwise rotation. If the opposite rotation is required, due to changes at the installation, the HS can easily be adapted with a simple change out of one component.
Life Cycle Cost (LCC) analysis is an objective standard that allows you to benchmark different pump solutions and suppliers, based on initial investment and the costs of installation, maintenance and energy. By considering LCC when choosing your pumps, you can help reduce CO₂ dramatically and thereby make an important contribution to the well-being of our planet.

**How to calculate Life Cycle Cost (LCC)**

\[
LCC = C_i + C_{in} + C_e + C_o + C_m + C_{env} + C_d
\]

- \(C_i\) = initial costs, purchase price
- \(C_{in}\) = installation and commissioning
- \(C_e\) = energy costs
- \(C_o\) = operation cost (labour cost)
- \(C_m\) = maintenance and repair costs
- \(C_d\) = downtime costs (loss of production)
- \(C_{env}\) = environmental costs
- \(C_d\) = decommissioning / disposal costs

An LCC process will show the most cost-effective solution within the limits of available data.